Peaceful Nuclear Cooperation

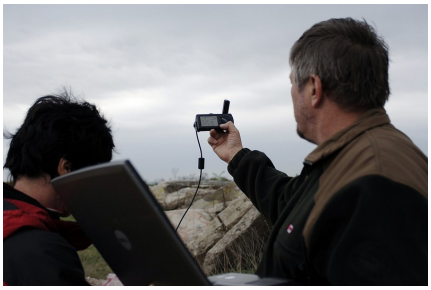
U.S. Support for NPT Article IV

UNITED STATES & TUNISIA

Through the International Atomic Energy Agency (IAEA), the United States contributes to the work of many countries using nuclear materials and technology for peaceful purposes. In recent years, U.S. support has focused on achieving tangible and lasting benefits in fields that are vital to human development, including agriculture, human health, water resource management, and human resource development. Since 2000, the IAEA has approved and funded $5,886,173, including $268,924 in 2013, under its Technical Cooperation (TC) program for projects in Tunisia.

The United States views its support for the peaceful uses of nuclear energy as a critical part of its efforts to strengthen the IAEA and the global nuclear nonproliferation regime. About 25% of the IAEA's annual budget for peaceful nuclear assistance comes from the U.S. In 2012, the U.S. contributed almost $22 million to the Technical Cooperation Fund and over $6 million in additional funding for training, fellowships, and cost-free experts.

In addition to these longstanding contributions to the IAEA's peaceful uses programs, at the 2010 NPT Review Conference, the U.S. announced a $100 million Initiative to further expand this support over the next five years. The U.S. pledged $50 million towards the IAEA's Peaceful Uses Initiative (PUI), focusing on human health, food security, water resource management, and nuclear power infrastructure development. The U.S. has already allocated over $27 million to specific PUI projects, and welcomes the contributions of Japan, the Republic of Korea, New Zealand, the Czech Republic, Hungary, Sweden, Australia, France, Indonesia, Brazil, Italy, the UK and Kazakhstan to this important Initiative.



1. *International radiation measurement exercise. Credit: Dean Calma/IAEA*
2. *2012 IAEA-Argonne international seminar on nuclear security. Credit: Argonne National Laboratory*
3. *Nuclear techniques can make cocoa trees resistant to a virus that kills millions each year. Credit: David Kinley III/IAEA*

NUCLEAR ENERGY

The need for electricity, economic competiveness and environmental considerations have increasingly led a large number of Member States to consider nuclear power as an energy development option and seek assistance from the IAEA. Tunisia is currently participating in a regional TC project sponsored by the U.S. to increase awareness of the requirements and challenges related to the feasibility of nuclear power programs. The project addresses regional priorities and concerns related to nuclear energy, including the requirements for conducting comprehensive studies to explore the feasibility of nuclear power, developing nuclear safety frameworks, and promoting regional cooperation and common understanding about major nuclear power issues, such as nuclear material, radioactive waste management, legal and safety obligations, human and financial resources, and reliable technologies.

Surging interest in nuclear energy has also created new challenges for those African countries with uranium resources and other radioactive ores as many lack appropriate legislative frameworks for regulating activities related to uranium exploration and exploitation in order to protect their interests, the environment and the public at large. Tunisia is currently participating in a regional TC project sponsored by the U.S. to strengthen participating Member States' capabilities for effective and efficient management of uranium resources and other radioactive ores, as well as to build the legislative framework to effectively regulate related activities.

NUCLEAR SAFETY

Nuclear technology has great potential to shape the future of developing countries, but is not without some risk. In recognition of this, Tunisia recently participated in a regional TC project funded by the U.S. to strengthen national regulatory infrastructures for the control of radiation sources. Tunisia currently participates in another regional TC project, also funded by the United States to maintain these infrastructures and enhance their effectiveness and sustainability.

Self-assessment and regional networking can also significantly

contribute to strengthening national regulatory infrastructures, so Tunisia is currently participating in a regional TC project sponsored by the U.S. to improve the performance of regulatory systems and conform to the requirements of international standards through self-assessment and enhanced regional cooperation. Tunisia is also extending its cooperation by participating in an interregional TC project sponsored by the U.S. to strengthen cradle-to-grave control of radioactive sources in the Mediterranean region.

RADIATION PROTECTION

Through additional U.S.-sponsored regional TC projects, Tunisia is also currently working to strengthen occupational radiation protection, radiation protection of patients during medical exposure, as well as control of public exposures.

EMERGENCY MANAGEMENT

Radiation emergencies not only risk injury to individuals, but can also contaminate large territories and affect the living conditions of communities. Tunisia is currently participating in a regional TC project sponsored by the U.S. to strengthen participating countries' national arrangements for response to radiological and nuclear emergencies and improve their compliance with international standards.

HUMAN HEALTH

While radiotherapy is a well-known nuclear technology used for cancer treatment, the lack of adequate human resources in many centers in the African region negatively affects the accessibility and quality of care available for cancer patients. Tunisia is currently participating in a regional TC project sponsored by the U.S. to determine the number of professionals working in each country, assess and improve existing training programs, and establish training programs in countries where they don't exist.

AGRICULTURE

In addition to land degradation, many regions in Africa are also vulnerable to climatic variability and frequent droughts. In such context, the introduction and adaptation of irrigation is a key factor for increasing crop production, reducing vulnerability to food deficits and contributing to income generation for resource-poor farmers. Nuclear and isotopic techniques can offer the ability to unravel interactions between water, soil, and applied and existing nutrient pools, providing great insight into the productivity and effectiveness of various irrigation systems.

Tunisia is therefore currently participating in a regional project sponsored by the U.S. to develop and pilot test appropriate irrigation systems, methods and related water-nutrient management practices for small-scale farmers in order to increase yield, quality of crops and income.

HUMAN RESOURCES

To contribute to Member States' manpower development, the IAEA awards individual fellowships and organizes group training courses. Every year, numerous fellows and training course participants travel to the U.S. for training in various peaceful uses of nuclear technology and return to their home country to apply the lessons learned.

Since 2000, the U.S. has hosted multiple training courses that included Tunisian participants in fields such as insect pest control, isotope data interpretation and isotope hydrology, quality assurance in radiotherapy, and nuclear safety and security. Training was also provided through the IAEA Fellowship Program to five Tunisians in the fields of radioanalytical techniques, fuel cycle and waste management, insect pest control.

Additionally, since 2000, 10 U.S. experts have traveled to Tunisia to collaborate through various IAEA Technical Cooperation projects. Examples of some topics include workforce planning and human resource development, nuclear analytical techniques, flies, and date moth rearing.

Through bilateral efforts, the United States has provided direct support to Member States through various collaborative projects such as the exchange of information, expert visits, and training of personnel.

In 2010, the U.S. Department of Energy's National Nuclear Security Administration (DOE/NNSA) signed a memorandum of cooperation with Tunisia for information exchange and cooperation in peaceful nuclear energy infrastructure and nonproliferation, and has initiated several projects in the area of nuclear safeguards infrastructure development. This includes State Systems of Accounting and Control (SSAC) development, Additional Protocol implementation, national regulations for nuclear power, radioactive waste management, radiation protection, and quality assurance and control.

Also, Tunisia is a current Next Generation Safeguards Initiative (NGSI) International Nuclear Safeguards Engagement Program (INSEP) partner. In 2012, DOE/NNSA provided $95,000 to support INSEP activities in Tunisia.

Additionally, since 2000, one Tunisian physician has been certified in the U.S. through the American Board of Nuclear Medicine.

FOR ADDITIONAL INFORMATION, CONTACT:
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